sorial quadrupeds are destitute of even the smallest rudiment of a clavicle, as I have ascertained by repeated careful dissection.

Since, therefore, a clavicle in any degree of development is not essential to a climbing quadruped, we must seek for some other relation and use of that remarkably strong, and perfect bone, as it exists in the Megathere, Megalonyx, and Scelidothere. The absence of 'dentes primores' or of anterior or incisive teeth in these quadrupeds at once sets aside any idea of its connection with an action of the fore extremities, very common in the mammals which possess clavicles, viz., that of carrying the food to the mouth, and holding it there to be gnawed by the teeth. Flying is of course out of the question, although our surprise would hardly be less at seeing a beast as bulky as an elephant climbing a tree, than it would be to witness it moving through the air. If now we restrict our comparison to the relations of the clavicle in that order of Mammalia to which the extinct species in question belonged, we shall see that it is most constant, strongest, and most complete in those species which make most use of their strong and long claws in displacing the earth, as the Armadilloes and Orycteropus: and, as the clavicle is incomplete in one climbing Edental, we are naturally led to conclude that its perfect development in an extinct species must have been associated with uses and relations analogous to those with which it coexists in other genera of the same order. Thus it will be seen, that, in rejecting the conclusion drawn by M. Lund from the presence of a clavicle, I concur in the opinion expressed by Dr. Buckland* that the Megatherium—and with it the Megalonyx and Scelidotherium—had the shoulder-joint strengthened by the clavicle, in reference to the office of the fore-arm, as an instrument to be employed in digging roots out of the ground. Not, however, that these gigantic quadrupeds fed on roots, but rather, as the structure of the teeth would show, on the foliage of the trees uprooted by the agency of this powerful mechanism of the fore-legs, and of the otherwise unintelligible colossal strength of the haunches, hind-legs, and tail.

The humerus presents a large convex oval head, on each side of which is a tuberosity for the implantation of the supra- and sub-scapular muscles: these tuberosities do not rise above the articular convexity, so as to restrict the movements of the shoulder-joint, as in the Horse and Ruminants, but exhibit a structure and disposition conformable to those which characterize the proximal extremity of the humerus in other mammalia which enjoy rotatory movements of the upper or fore-limb. The tuberosities are, however, relatively more developed, and give greater breadth to the proximal end of the humerus in the Scelidothere than in the Megathere. The distal end of the humerus, although mutilated, clearly indicates that it had the same characteristic breadth of the external and internal

* Bridgewater Treatise, p. 152.

condyles, as in the Megatherium. In fig. 1. Pl. XXV. which gives a front view of the left humerus, the broad internal condyle, with its extremity broken off, is seen projecting to the left hand; both in this figure and in fig. 2. in which the internal side of the humerus is turned towards the observer, the wide groove, with its two osseous boundaries, is shewn, which plainly indicates that the left condyle was perforated for the direct passage of the artery or median nerve, or of both, to the fore-arm. The groove for the musculo-spiral nerve on the outer side of the humerus is over-arched at its upper part by a strong obtuse process; which is comparatively less developed in the Megatherium. The trochlear or inferior articular surface of the humerus presents, as in the Megatherium, two well-marked convexities, with an intervening concavity: this indication of the rotatory power of the fore-leg is confirmed by the form of the head of the radius.

In Pl. XXV. fig. 4. a view is given of this articular surface: it presents the form of a subcircular gentle concavity, which plays upon the outer convexity of the humeral articular surface: immediately below the upper concavity the radius presents a lateral smooth convex surface, which rotates upon a small concavity on the ulna, analogous to the 'lesser semilunar,' in human anatomy, in which the mechanism for rotation, so far as the upper joint of the radius is concerned, is not more elaborately wrought out than in the present extinct edentate quadruped. The radius expands as it proceeds to the elbow-joint, where it attains a breadth indicative of the great power and size of the unguiculate paw, of which it may be called the stem, and to the movements of which it served as the pivot.

All the bones of the fore-limb just described—the scapula, the humerus, and the radius,—indicate by the bold features and projections of the muscular ridges and tubercles the prodigious force which was concentrated upon the actions of the fore-paw, and the ulna, in its broad and high olecranon (of which a side-view is given in fig. 2. Pl. XXV.) gives corresponding evidence. The great semilunar concavity is traversed by a sub-median smooth ridge, which plays upon the interspace of the two humeral convexities. The body of the bone is subcompressed, straight, and diminishes in size as it approaches the carpal joint: the immediate articulating surfaces are wanting in both the radius and ulna, the epiphysial distal extremities having become detached from their respective diaphyses.

Of the terminal segment of the locomotive extremities, the only evidence among the remains of the skeleton of the Scelidothere is the ungueal phalanx figured at Pl. XXVII. 3, 4, and 5; but as it is uncertain whether it belong to the fore or hind-foot, it will be described after the other bones of the extremities have been noticed.

Of these bones the femur is the most remarkable, both for its great proportional size, and its extreme breadth, as compared with its length or thick-